

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,563	10/23/2001	Hsiao-Keng J. Chu	SUN-P6527-PIP	4836
22835	7590 08/22/2005		EXAM	INER
A. RICHAR	D PARK, REG. NO. 412	41		HUC H
,	GHAN & FLEMING LLP	.P	ART UNIT	PAPER NUMBER
2820 FIFTH STREET DAVIS, CA 95616				THE BRITONIBER

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/035,563	CHU, HSIAO-KENG J.				
Office Action Summary	Examiner	Art Unit				
	PHUC H. TRAN	2666				
The MAILING DATE of this communication  Period for Reply	on appears on the cover sheet wi	ith the correspondence address				
A SHORTENED STATUTORY PERIOD FOR IT THE MAILING DATE OF THIS COMMUNICAT  - Extensions of time may be available under the provisions of 37 of after SIX (6) MONTHS from the mailing date of this communical  - If the period for reply specified above is less than thirty (30) days  - If NO period for reply is specified above, the maximum statutory  - Failure to reply within the set or extended period for reply will, by  - Any reply received by the Office later than three months after the  - earned patent term adjustment. See 37 CFR 1.704(b).	ION.  CFR 1.136(a). In no event, however, may a ricon.  s, a reply within the statutory minimum of third period will apply and will expire SIX (6) MON y statute, cause the application to become AB	eply be timely filed by (30) days will be considered timely. THS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on	23 January 2001.					
2a) ☐ This action is <b>FINAL</b> . 2b) ∑	☐ This action is <b>FINAL</b> . 2b) ☐ This action is non-final.					
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4) ☐ Claim(s) <u>1-30</u> is/are pending in the application 4a) Of the above claim(s) is/are with 5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) <u>1-30</u> is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction	thdrawn from consideration.					
Application Papers						
9)☐ The specification is objected to by the Ex	aminer.	•				
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119		•				
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)	_					
I) Motice of References Cited (PTO-892)  Discrete Transport (PTO-94)  Notice of Draftsperson's Patent Drawing Review (PTO-94)	4) Interview S	ummary (PTO-413) s)/Mail Date				
Paper No(s)/Mail Date		formal Patent Application (PTO-152)				

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 2. Claims 9, 19, and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
- Regarding to claims, "InifiBand standard" is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-8, 10-18, and 20-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Finn et al. (U.S. Patent No. 5826032).

- With respect to claims 1, 11, and 21, Finn teaches method for bypassing use of a protocol checksum during communications across a reliable network link (e.g. the method using a computer for providing an embedded checksum is a packet of Finn), comprising:

configuring a communication system to bypass use of the checksum during communications across the reliable network link (e.g. Fig. 7A);

receiving an outbound packet to be transmitted to a destination across the reliable network link (block 81 in Fig. 9); and

sending the outbound packet to the destination across the reliable network link without computing the checksum for the outbound packet (Fig. 7A at block 24).

- With respect to claims 2, 12, and 22, Finn also teaches wherein configuring the communication system to bypass the checksum involves informing a protocol stack (e.g. Fig. 2) within the communication system that network interface hardware for the communication system is capable of computing the checksum, so that the protocol stack does not compute the checksum (Fig. 7B).
- With respect to claims 3, 13, and 23, Finn discloses whether the outbound packet is directed to a valid destination that is eligible for checksum bypassing (block 29 in Fig. 7B); if the outbound packet is not directed to a valid destination, computing the checksum for the outbound packet, and inserting the checksum into the outbound packet (block 22 in Fig. 7B).
- With respect to claims 4, 14, and 24, Finn teaches wherein the checksum is computed by a driver associated with network interface hardware for the communication system (e.g. at sibling computer).

Application/Control Number: 10/035,563 Page 4

Art Unit: 2666

- With respect to claims 5, 15, and 25, Finn teaches further comprising: receiving an inbound packet from a source across the reliable network link (block 31 in Fig. 7B); and accepting the inbound packet without re-computing the checksum (Fig. 11); wherein recomputation of the checksum is required by the communication protocol to verify that the inbound packet was received without errors (col. 11, lines 43-47).

- With respect to claims 6, 16, & 26, Finn also teaches wherein accepting the inbound packet without re-computing the checksum involves:

communicating a default checksum value to a protocol stack within the communication system (e.g. block 33 in Fig. 7B);

wherein the default checksum value matches the default checksum value contained within a checksum field of the inbound packet (e.g. validate at Fig. 7B);

whereby the protocol stack will match the default checksum value with the checksum field of the inbound packet and will consequently accept the inbound packet (block 29 in Fig. 7B).

- With respect to claims 7, 17, and 27, Finn teaches wherein accepting the inbound packet without re-computing the checksum additionally involves inserting the default checksum value into the checksum field of the inbound packet (block 22 in Fig. 7B).
- With respect to claims 8, 18, and 28, Finn discloses wherein the communication protocol includes one of:

Transmission Protocol (col. 5, line 23);

Internet Protocol (col. 5, line 23), and

User Datagram Protocol (col. 5, line 56).

Art Unit: 2666

- With respect to claims 10, 20, and 30, Finn also discloses wherein the checksum is a TCP checksum (e.g. Fig. 3); and wherein the protocol stack is an IP stack (Fig. 2).

#### Conclusion

- 5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - Melzer et al. (U.S. Patent No. 5898713) discloses IP checksum offload.
  - Aaker et al. (U.S. Patent No. 5815516) discloses method and apparatus for producing transmission control protocol checksums using Internet protocol fragmentation.
- 6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran Assistant Examiner Art Unit 2664

P.t 8/18/05

DANG TON
REMEMBER
REM